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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/540,026	01/25/2006	Bertram Sugg	R.304045	8866

2119 7590 01/09/2008
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EXAMINER

GORDON, BRYAN P

ART UNIT	PAPER NUMBER
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2834

MAIL DATE	DELIVERY MODE
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01/09/2008

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/540,026	Applicant(s) SUGG, BERTRAM	
	Examiner Bryan P. Gordon	Art Unit 2834	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on 17 November 2007.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 9-32 is/are pending in the application.
- 4a) Of the above claim(s) 11-12, 15-32 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 9, 10, 13 and 14 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

1. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

Claim Rejections - 35 USC § 102

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

3. Claims 9-10 and 13-14 are rejected under 35 U.S.C. 102(b) as being anticipated by Schreiner (PG Pub 20020175591).

4. Considering claim 9, Schreiner teaches (Figure 1) a piezoelectric actuator (1), having a multi-layered construction of piezoelectric layers (2) interleaved with inner electrodes (3) and having an alternating contacting of the inner electrodes with outer electrodes (4,5), the regions between the outer electrodes being provided with an insulation layer, comprised of the same ceramic material as the piezoelectric layers, and thus having the same properties as the piezoelectric layers themselves and the insulating layer being applied to the outer surface of the piezoelectric actuator (abstract + paragraph 0006).

5. Considering claim 10, Schreiner teaches the insulating layer encloses the edges of the piezoelectric actuator (paragraph 0006).

6. Considering claim 13, Schreiner teaches the outer electrodes are attached to regions of the insulating material that have been uncovered by grinding (paragraph 0006).

7. Considering claim 14, Schreiner teaches the outer electrodes are attached to regions of the insulating material that have been uncovered by grinding (paragraph 0006).

8. Newly submitted claims 29-32 directed to an invention that is independent or distinct from the invention originally claimed for the following reason: The piezoelectric actuator can be made by another method such as compression of insulation material to the piezo stack.

9. Since applicant has received an action on the merits for the originally presented invention, this invention has been constructively elected by original presentation for prosecution on the merits. Accordingly, claims 29-32 withdrawn from consideration as being directed to a non-elected invention. See 37 CFR 1.142(b) and MPEP § 821.03.

Response to Arguments

10. Applicant's arguments filed 17 November 2007 have been fully considered but they are not persuasive. With regard to the insulating layer being applied to the outer surfaces of the piezoelectric actuator in the green state of the piezoelectric actuator, before sintering, is given little patentable weight since the method of forming the device is not germane to the issue of patentability of the device itself. Regardless of when the insulation layer was form, before or after sintering, does not affect the final outcome of

the device itself. Regarding the piezoelectric and insulation layers using the same ceramic material Schreiner states (abstract) that the actuators contain a ceramic material and that the insulation skin is produced from sintered the actuators which of course comprise a ceramic. Therefore, it can be concluded that the insulation skin is indeed made of the same ceramic material that the piezoelectric layers contain.

Conclusion

11. Claims 17-28 are listed as previously presented while this should be changed too withdrawn since in a previous office action they were drawn to a non-elected group in a restriction requirement.

12. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

13. A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the mailing date of this final action.

14. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Bryan P. Gordon whose telephone number is 571-272-

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5394. The examiner can normally be reached on Monday-Thursday 8:00-5:30, Friday 7:30-4:00.

15. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Darren Schuberg can be reached on 571-272-2044. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

16. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

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